



AF 214
2631

PTO/SB/21 (09-04)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/654,643	
	Filing Date	09/05/2000	
	First Named Inventor	Pak Shing Chau	
	Art Unit	2631	
	Examiner Name	Bayard, Emmanuel	
Total Number of Pages in This Submission	5	Attorney Docket Number	RA-194 (RA194.P.US)

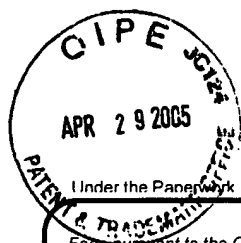
ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached Check # 2004 <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1. Form PTO/SB/08A (1 page). 2. Form PTO/SB/08B (1 page). 3. Copies of all references cited on form PTO/SB/08B. 4. Return Receipt Postcard.
<div>Remarks</div>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Silicon Edge Law Group, LLP - Arthur J. Behiel, Patent Attorney		
Signature			
Printed name	Arthur J. Behiel		
Date	4/26/2005	Reg. No.	39,603

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature			
Typed or printed name	Laurie Moreno	Date	4/26/2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APR 29 2005

PTO/SB/17 (12-04v2)

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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL**
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number	09/654,643
Filing Date	09/05/2000
First Named Inventor	Pak Shing Chau
Examiner Name	Bayard, Emmanuel
Art Unit	2631
Attorney Docket No.	RA-194 (RA194.P.US)

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☐ Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Fee (\$)	Small Entity Fee (\$)
50	25
200	100
360	180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims
Fee (\$) **Fee Paid (\$)****3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	_____	_____ / 50 = _____ (round up to a whole number)	x _____ = _____	_____

4. OTHER FEE(S)

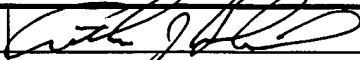
Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): 1.17(p) Submission of an Information Disclosure Statement

Fees Paid (\$)

\$180.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 39,603	Telephone 925-621-2113
Name (Print/Type)	Arthur J. Behar		Date April 19, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Pak Shing Chau, Haw-Jyh Liaw, Jun Kim and Jared L. Zerbe

Assignee: Rambus Inc.

Title: "Low-Latency Equalization in Multi-Level, Multi-Line Communication Systems"

Serial No.: 09/654,643 Filed: 09/05/2000

Examiner: Bayard, Emmanuel Tel: 571-272-3016

Docket No.: RA-194 Art Unit: 2631
(RA194.P.US)

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

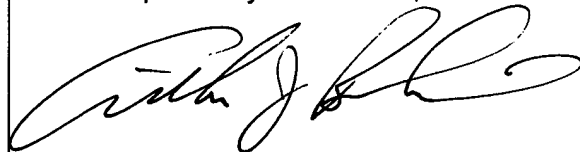
Pursuant to 37 C.F.R. §1.56, §1.97 and §1.98, Applicants bring the 8 documents listed on the enclosed forms PTO/SB/08A (1 page) and PTO/SB/08B (1 page) to the Examiner's attention in the above-identified application. Citation of the listed documents shall not be construed as:

1. an admission that the documents are necessarily prior art with respect to the instant application;
2. a representation that a search has been made; or
3. an admission that the information cited is, or is considered to be, material to patentability as defined in §1.56(b).

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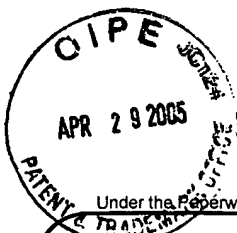
4/26/2005 
Date Laurie Moreno

Respectfully submitted,



Arthur J. Behiel
Attorney for Applicants
Reg. No. 39,603

05/02/2005 EFLDRES 00000021 09654643 180.00 0P
01 FC:1806



PTO/SB/08B (08-03)

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2

of

2

Complete if Known

Application Number	09/654,643
Filing Date	09/05/2000
First Named Inventor	Pak Shing Chau
Art Unit	2631
Examiner Name	Bayard, Emmanuel
Attorney Docket Number	RA-194 (RA194.P.US)

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	2	CHOI, JONG-SANG et al., "A CMOS 3.5Gbps Continuous-time Adaptive Cable Equalizer with Joint Adaptation Method of Low-Frequency Gain and High-Frequency Boosting." 2003 Symposium on VLSI Circuits Digest of Technical Papers. Pgs. 103-106.	
	3	SHAKIBA, MOHAMMAD HOSSEIN, "WP 23.3 A 2.5Gb/s Adaptive Cable Equalizer." 1999 IEEE International Solid-State Circuits Conference. Pages 396-397.	
	4	BAKER, ALAN J., "FA 10.7: An Adaptive Cable Equalizer for Serial Digital Video Rates to 400Mb/s." 1996 IEEE International Solid-State Circuits Conference." Pages 174-175.	
	5	KUDOH, YOSHIHARU et al., "A 0.13-um CMOS 5-Gb/s 10-m 28 AWG Cable Transceiver with No-Feedback-Loop Continuous-Time Post-Equalizer." IEEE Journal of Solid-State Circuits, Vol. 38, No. 5, May 2003. Pages 741-746.	
	6	GRANBERG, TOM, "Handbook of Digital Techniques for High-Speed Design." Cover and pub. pg., pgs. 211-226.	
	7	FARJAD-RAD, RAMIN et al., "0.622-8.0Gbps 150mW Serial IO Macrocell with Fully Flexible Preemphasis and Equalization." 2003 Symposium on VLSI Circuits Digest of Technical Papers. 4 Pages.	
	8	STOJANOVIC, VLADIMIR et al., "Adaptive Equalization and Data Recovery in a Dual-Mode (PAM2/4) Serial Link Transceiver." June 2004. 4 pages. Rambus, Inc., Los Altos, CA 94022, USA and Department of Electrical Engineering, Stanford University, CA 94305, USA.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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